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CHINCH BUGS

The southern chinch bug, *Blissus insularis*, is a common turfgrass pest in the southeast. It is a major pest of St. Augustinegrass, however, it will feed on zoysiagrass, bermudagrass, and centipedegrass.

Chinch bug life cycle (top) showing the egg, 1st & 2nd instar bright orange), 3rd & 4th instar dull red, 5th instar black, and long and short–winged adults. Long–winged adults are shown on a grass stem (bottom).

Adult and immature chinch bugs suck sap from the host plant. As they feed a toxin is injected into the grass causing it to turn yellow and eventually die. Damage appears much quicker on grass that is under stress from drought or heat. At first infestations are very spotty. If left uncontrolled, large areas of grass will eventually die. Chinch bugs are most common on lush, heavily fertilized grass and on grass with a heavy thatch layer.

Immature chinch bugs (nymphs) are bright orange in color with a white band on the abdomen during the first two instars. The third and fourth instars are a darker red, and the fifth instar is black. Adults are black with shiny white wings. Adults may have long, fully developed wings or short wings.There are two or three generations of chinch bugs in South Carolina. The winter is spent as an adult or late instar nymph.

St. Augustinegrass lawns should be sampled regularly for chinch bug activity. The sampling should be done on the edges of suspected areas of infestation. Floatation is a standard method of sampling for chinch bugs. A simple device is made by cutting both ends our of a one gallon can and forcing the can into the soil. Fill the can with clear water, remove the debris that floats to the top and watch for chinch bugs to float to the surface. Add water as needed to maintain an inch or two of water above the grass. Both adults and nymphs should float to the surface within five minutes. Landscape managers may want to make a more substantial device from a length of thin-wall steel tubing. Teeth can be formed on the bottom edge and handles welded near the top of the cylinder.

Another method is to simple kneel on the ground, spread the grass apart until the soil surface is visible and watch carefully for adults and nymphs. Repeat this in several locations.

A general treatment threshold for chinch bugs is 20–25 per square foot. Insecticide treatments are usually required when populations reach this level. In many areas of Florida, chinch bugs are resistant to the older organophosphate and carbamate insecticides. Many of the newer classes of insecticides are still effective. Care must be taken to follow all label directions.

Other management techniques include regular thatch reduction, proper watering, and not over-fertilizing. Some cultivars of St. Augustinegrass are resistant to chinch bug attack. These include ‘Floratam’ and ‘Floralawn’. There are some indications that chinch bugs are overcoming this resistance in parts of Florida.

A floatation device showing teeth and handle (top left) and inserted into the sod (top right) and chinch bugs floating on the water surface amongst the debris (bottom). Photo: C. S. Gorsuch

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